In the Claims:

Please amend claims 1 and 4, and add new claims 5-14 as follows:

- 1. (Currently amended) A <u>method of treatingment for</u> a patient suffering from a brain or spinal cord injury or neurodegenerative disease, the method comprising <u>administering</u> the steps of: intravascular administration or transplanting of cultured bone marrow <u>stromal</u> cells into thea <u>central nervous tissue adjacent to an impaired nervous tissue brain or spinal cord</u> of the patient in <u>order to activate endogenous stem cells in the brain to differentiate into parenchymal cellsneed; and generating new neurons in the brain of the patient.</u>
- 2. (Original) A method of activating the differentiation of neural cells in an injured brain or spinal cord comprising the steps of: transplanting bone marrow cells adjacent to the injured brain cells; and activating the endogenous central nervous system stem cells to differentiate into neurons.
- 3. (Original) A method of treating injured brain or spinal cord cells comprising the steps of: transplanting cultured bone marrow cells near the injured brain cells; and generating new neurons at the location of transplantation or of intravascular (intraarterial, intravenous) injection of cultured bone marrow cells.
- 4. (Currently amended) A method of treating injured brain or spinal cord in a patient by injecting or transplanting a composite of mesenchymal stem cells (MSCs) and neurospheres into a central nervous tissue adjacent to an impaired nervous tissue of the patient in order to activate endogenous stem cells in the brain to differentiate into parenchymal cells said patient.
- 5. (New) The method of claim 1, wherein the central nervous tissue adjacent to the impaired nervous tissue comprises an penumbral tissue.
- 6. (New) The method of claim 1, wherein the central nervous tissue adjacent to the impaired nervous tissue comprises an ischemic boundary zone.

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- 7. (New) The method of claim 1, wherein the cells are administered to the central nervous tissue adjacent to an impaired nervous tissue by way of intravascular administration.
- 8. (New) The method of claim 1, wherein the cells are administered to the central nervous tissue adjacent to an impaired nervous tissue by way of direct transplantation.
- 9. (New) The method of claim 1, wherein the impaired nervous tissue comprises a brain tissue.
- 10. (New) The method of claim 1, wherein the impaired nervous tissue comprises a spinal cord tissue.
- 11. (New) The method of claim 1, wherein the impaired nervous tissue comprises a lesion and further wherein the cells are administered into a penumbral tissue adjacent to the lesion.
- 12. (New) The method of claim 1, wherein the impaired nervous tissue comprises a lesion and further wherein the cells are administered into an ischemic boundary zone adjacent to the lesion.
- 13. (New) The method of claim 1, wherein the impaired nervous tissue comprises a tissue affected by stroke.
- 14. (New) The method of claim 1, wherein the neurodegenerative disease is Parkinson's disease.

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